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pharmacologically active peptide contemporaneously activate their respective receptors;

"b. The modification of the mu (μ) opioid receptor agonist such that it can be covalently attached to a flexible cross-linker, the covalent attachment of the modified mu (μ) opioid receptor agonist to the flexible hinge cross-linker, and the covalent attachment of the cross-linker via a peptide bond to the pharmacologically active peptide, to form a conjugate molecule; and

"c. The administration of a pharmaceutical composition of said conjugate molecule to said living subject.

A method of transporting an pharmacologically active form of Substance P, or neuropeptide, across the blood-brain barrier into the central nervous system of a living subject using the chimeric hybrid molecule comprising a cyclic alkaloid moiety which binds as an agonist to a mammalian or human mu (μ) opioid receptor and a peptide moiety which binds as an agonist to a mammalian/human substance P: "

Please amend Claim 2 to read: "The method of claim 1 wherein the mu opioid receptor agonist is a pharmacologically active opioid.

A method of transporting a pharmacologically active form of substance P, or neuropeptide, across the blood-brain barrier into the central nervous system of a living subject using the active metabolite of morphine, morphine 6-glucuronide, contained within chimeric hybrid molecules wherein:

a. One moiety of the chimeric hybrid molecule binds as an agonist to the mu (μ) opioid receptor and the other moiety of which binds as an agonist to the substance P receptor comprised of:

~~(i) chemically modified morphine in which morphine covalently linked through its 6'OH group comprises the mu (μ) opioid receptor agonist moiety;~~

~~(ii) the substance P fragment N-acetyl-SP [3-11], sequence of Ac-KPQQFFGLM-NH₂ (SEQ. ID. NO. 1), covalently linked through its ϵ (epsilon) amino group, which comprises the substance P receptor agonist moiety; and~~

~~(iii) the six carbon carbohydrate d-glucuronic acid, covalently cross-linking morphine through its 6'OH group via an o-glycosidic bond to the ϵ (epsilon) amino group of the substance P fragment N-acetyl-SP [3-11] via a pseudo peptide bond, which comprises a compact molecular hinge linking the two moieties; or~~

~~b. One moiety of the chimeric hybrid molecule binds as an agonist to the mu (μ) opioid receptor and the other moiety of which binds as an agonist to the substance P receptor comprised of:~~

~~(i) chemically modified morphine in which morphine covalently linked through its 6'OH group comprises the mu (μ) opioid receptor agonist moiety;~~

~~(ii) the substance P fragment SP [5-11], sequence of QQFFGLM-NH₂ (SEQ. ID. NO. 2), covalently linked through its α (alpha) amino group, which comprises the substance P receptor agonist moiety; and~~

~~(iii) the six carbon carbohydrate d-glucuronic acid, covalently cross linking morphine through its 6'OH group via an o-glycosidic bond to the α (alpha) amino group of the substance P fragment SP [5-11] via a pseudo peptide bond, which comprises a compact molecular hinge linking the two moieties, or~~

~~c. A chimeric hybrid molecule one moiety of which binds as an agonist to the mu (μ) opioid receptor and the other moiety of which binds as an agonist to the substance P receptor comprised of:~~

~~(i) chemically modified morphine in which morphine covalently linked through its 6'OH group comprises the mu (μ) opioid receptor agonist moiety;~~

~~(ii) the substance P fragment SP [7-11], sequence of FFGLM-NH₂ (SEQ. ID. NO. 3), covalently linked through its α (alpha) amino group, which comprises the substance P receptor agonist moiety; and~~

~~(iii) the six carbon carbohydrate d-glucuronic acid, covalently cross linking morphine through its 6'OH group via an o-glycosidic bond to the α (alpha) amino group of the substance P fragment SP [7-11] via a pseudo peptide bond, which comprises a compact molecular hinge linking the two moieties."~~

Please add Claim 3 to read: "The method of claim 2 wherein the opioid is a pharmacologically